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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/553,431      | 10/18/2005  | Yusuke Takahashi     | 19254               | 3768             |

7590 08/12/2009  
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| EXAMINER |
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DANIELS, ANTHONY J

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| ART UNIT | PAPER NUMBER |
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2622

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| MAIL DATE | DELIVERY MODE |
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08/12/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                       |   |  |
|------------------------------|---------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/553,431  | <b>Applicant(s)</b><br>TAKAHASHI ET AL. |  |
|                              | <b>Examiner</b><br>ANTHONY J. DANIELS | <b>Art Unit</b><br>2622                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-6 and 30-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-6 and 30-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment, filed 5/26/2009, has been entered and made of record. Claims 3-6 and 30-41 are pending in the application.
2. Applicant's amendment to claims 30 and 32 has overcome the examiner's USC 101 rejection of claims 30-35.
3. Applicant's amendment to claims 36-41 does not overcome the objection to the specification. See Response to Arguments section below.
4. The USPTO has not offered the change to the title of the invention. It may have been changed due to a typographical error. However, the examiner does offer a new title. See below.

### ***Response to Arguments***

1. Applicant's arguments regarding the objection to the specification and the USC 101 rejection have been fully considered but they are not persuasive.

Applicant argues, "...Applicants submit that support for "computer readable recording medium" is inherently provided for in the specification. Moreover, as noted in the present Office Action, the specification does recite: "a recording medium such as a CD-ROM, a DVR-R, a hard disk, a memory, or the like." Applicant makes this statement, because "a program" is supported by the specification. The examiner would like to point out that the specification only supports a

Art Unit: 2622

recording medium. The subsets of media which can be considered recording media and computer-readable media overlap but are not identical as to the media which they encompass. More specifically, computer-readable recording medium is a narrower limitation than recording medium. Claiming computer-readable recording medium improperly limits the recording medium of the specification even though some recording media can be considered computer readable.

2. Applicant's arguments regarding the USC 112, 1st paragraph rejection and claims 36-41 have been fully considered but they are not persuasive.

The same arguments apply to this rejection as were discussed above in the objection to the specification. The examiner has no objection to the term, "computer-readable recording medium", per se. The problem lies in the support of the specification. The examiner suggests the following change to claim 36 to overcome the objection to the specification, USC 101 rejection and this 112, 1<sup>st</sup> paragraph rejection, "A ~~tangible computer-readable~~ recording medium...".

3. Applicant's arguments regarding the independent claims and the Matsumura et al. reference have been fully considered but they are not persuasive.

Applicant argues, "...Matsumoto fails to anticipate, or suggest, "...recognizing whether the object is present or not using a difference between visual feature quantities of a partial video image of the captured video image and the object and a difference between the position of the partial video image and the estimated position..." as recited in Claim 3 and similarly in Claims 30, 32, 36 and 38." Furthermore, Applicant states, "...in the apparatus and methods of the

Art Unit: 2622

present invention, the object is determined in view of estimated accuracy of the position of the object and a deviation of visual feature quantities of the object. Therefore, the object is determined comprehensively by using a deviation of visual position of the object and a deviation of points of view that are caused by deformation or hiding of the object.” The examiner submits that the comprehensive determination using a deviation of visual position of the object and a deviation of points of view that are caused by deformation or hiding of the object is not recited in the claim. The examiner appreciates the specific steps used to determine the differences recited in the claims. However, those specific steps cannot be read into the claims.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Also, the examiner submits that the claimed feature, “...recognizing whether the object is present or not using a difference between visual feature quantities of a partial video image of the captured video image and the object and a difference between the position of the partial video image and the estimated position...” is taught in the Matsumura et al. reference. More specifically, in the cited teachings of Matsumura et al., it is disclosed that not only are pixel values (visual feature quantities) used to determine the matching of the sight image (captured video image) and the CG image (partial video image), but the coordinate values (position) of the pixels are used. Given their broadest reasonable interpretation, the claims are submitted to be readable on the cited portions of the Matsumura et al. reference.

### ***Specification***

Art Unit: 2622

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claimed "computer readable medium" of claims 36-41 lacks antecedent basis in the original filed specification.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: APPARATUS FOR AND METHOD OF RECOGNIZING VIDEO IMAGE OBJECT, APPARATUS FOR AND METHOD OF APPLYING VIDEO IMAGE ANNOTATION, ~~AND PROGRAM TO RECOGNIZE VIDEO IMAGE OBJECT.~~

***Claim Rejections - 35 USC § 101***

1. The claimed invention is directed to non-statutory subject matter. Claim 36-41 sets forth a "computer readable recording medium." However, the specification as originally filed makes no mention of a computer readable medium, and is also silent as to what elements are considered to be encompassed by a computer readable medium. Since the specification as originally filed provides no definition of what encompasses the claimed computer readable medium, the examiner maintains that the claimed computer readable medium encompasses both statutory subject matter (e.g. CD-ROM, DVD-R, etc.) as well as non-statutory subject matter (e.g. signal or carrier wave), thereby necessitating this rejection.

Art Unit: 2622

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 36-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The terms “computer-readable recording medium” are not supported by the specification filed 10/18/2005. The specification does support, "a recording medium such as a CD-ROM, a DVR-R, a hard disk, a memory, or the like”. While these media can be considered computer readable recording media, the USPTO recognizes that a claim filed after original submission is not granted breadth such that media other than those recited in specification are covered by that claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2622

1. Claims 3-6 and 30-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura et al. (US # 6,222,583).

As to claim **3**, Matsumura et al. teaches a video image object recognizing apparatus (Figure 1) comprising: estimating means for estimating a position of an object in a captured video image from positional information which is information of the position of an object and image capturing information including information for determining an area where an image will be captured (Figure 10, CG image), and recognition means for recognizing whether said object is present or not using a difference between visual feature quantities of a partial video image of said captured video image and said object and a difference between the position of said partial video image and said estimated position (Col. 13, Lines 32-42).

As to claim **4**, Matsumura et al. teaches a video image object recognizing apparatus according to claim 3, wherein a probability distribution of an error of said image capturing information is reflected in a probability distribution that an object is present in recognizing whether said object is present or not (*The probability distribution of an error in the image capturing information is interpreted to be 0% - 100%. Also, the probability distribution that an object is present is 0% - 100%. Thus, the probability distribution of the error is reflected (i.e. the same as) in the probability distribution that an object is present.*).

As to claim **5**, Matsumura et al. teaches a video image object recognizing apparatus according to claim 4, wherein the probability distribution that an object is present is employed as the difference between the position of said partial video image and said estimated position (*The examiner submits that the difference between the position of said partial video image and said estimated position would inherently involve a probability distribution.*).



Art Unit: 2622

As to claim 6, Matsumura et al. teaches a video image object recognizing apparatus according to claim 5, wherein a normal distribution of a variance of an error of said image capturing information is employed as said probability distribution (*Similar to claim 5, a probability distribution would inherently involve a normal distribution of a variance of the error.*).

As to claims 30-35, claims 30-35 are method claims corresponding to the apparatus claims 1-5, respectively. Therefore, claims 30-35 are analyzed and rejected as previously discussed with respect to claims 1-6, respectively.

As to claims 36-41, in light of the passages of Matsumura et al. discussing computer generation ("CG") and the cited passages of Matsumura et al. discussed in claims 1-6, claims 36-41 are analyzed and rejected as previously discussed in claims 1-6, respectively.

### ***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2622

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. DANIELS whose telephone number is (571)272-7362. The examiner can normally be reached on 8:00 A.M. - 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AD

8/5/2009

/Sinh Tran/

Supervisory Patent Examiner, Art Unit 2622

Application/Control Number: 10/553,431

Page 10

Art Unit: 2622